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Utility Patent  
Ser. No. 10/564,615

In the Claims

Please amend the following claims by deleting the language which is enclosed in double brackets "[[ ]]" and inserting the language which is underlined "\_\_\_\_\_".

1. (Currently Amended) Treatment method of malignant tumors or [[oncological and/or infectious and/or somatic]] infections caused by bacteria, or diseases caused by fungi or protozoa, or atherosclerosis, or diabetes, or diseases caused by mutations in somatic cells' genes by acting on biological targets inside organisms, differs in that the biological target is extracellular DNA including extracellular DNA circulating in blood plasma.
2. (Currently Amended) Treatment method [[of oncological and/or infectious and/or somatic diseases]] according claim 1 differs in that the extracellular DNA circulating in blood plasma is inactivated by destruction, binding or enzymatic modification of it's structure.
3. (Currently Amended) Treatment method [[of oncological and/or infectious and/or somatic diseases]] according claim 1 and 2, differs in that the extracellular DNA circulating in blood plasma is inactivated by destruction, binding or enzymatic modification of it's structure by injecting to patient of pharmaceutical agent, which agent capable to [[destroy]] destruct, bind or enzymatically modify [[free circulating DNA]] it's structure.
4. (Currently Amended) Treatment method [[of oncological and/or infectious and/or somatic diseases]] according claim 1-3, differs in that the extracellular DNA is inactivated by destruction, binding or enzymatic modification by pharmaceutical agent's injection into patient in amount

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sufficient for destruction, binding or enzymatic modification and in therapeutic regime providing destruction, binding or enzymatic modification [[and in sufficient for therapeutic effect achievement]] within period of time, sufficient for achievement of therapeutic effect.

5. (Currently Amended) Treatment method [[of oncological and/or infectious and/or somatic diseases]] according claim 1-4 differs in that the [[genetically modified cells or]] genotherapeutic constructions are injected to patient when said constructions are [[remedies induce synthesis in host's organism of biopolymers,]] capable to induce synthesis in host's organism of biopolymers which could inactivate [[free circulating]] the extracellular blood plasma DNA [[by its binding, destruction or modification]].
6. (Withdrawn) Treatment method of oncological and/or infectious and/or somatic diseases according claim 1 or 2, differs in that the circulating extracellular DNA is inactivated by destruction, binding or modification using extracorporeal blood processing.
7. (Withdrawn) Treatment method of oncological and/or infectious and/or somatic diseases according claim 1,2 or 6, differs in that the extracorporeal purification of patient's blood from free circulating DNA is achieved by immune or affine absorption.
8. (Withdrawn) Treatment method of oncological and/or infectious and/or somatic diseases according claim 1,2 or 6, differs in that the extracorporeal purification of patient's blood from free circulating DNA is achieved by methods of gravitational blood surgery.
9. (Withdrawn) Treatment method of oncological and/or infectious and/or somatic diseases according claim 1,2 or 6, differs in that the extracorporeal purification of patient's blood from free circulating DNA is achieved by biological, chemical or photochemical inactivation.

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10. (Withdrawn) Treatment method of oncological and/or infectious and/or somatic diseases according claim 1 or 2, differs in that the patient is immunized by vaccine, which vaccine contain blood plasma circulating DNA (including said DNA with naturally complexed proteins) as the antigen..
11. (Canceled)
12. (Withdrawn) Pharmaceutical agent for oncological and/or infectious and/or somatic disease treatment, representing compound possessing desoxyribonuclease activity and/or being able to inactivate extracellular DNA including DNA circulating in patients blood plasma.
13. (Withdrawn) Pharmaceutical agent according claim 12 differs in that compound possessing desoxyribonuclease activity is desoxyribonuclease enzyme.
14. (Withdrawn) Pharmaceutical agent according claim 13 differs in that desoxyribonuclease is modified for better pharmacodynamic and pharmacokinetic performance and comprises desoxyribonuclease analogue with increased activity, desoxyribonuclease analogue not sensitive to endogenous inhibitors of desoxyribonuclease, polysialated desoxyribonuclease, pegylated desoxyribonuclease, desoxyribonuclease that is bound or mixed with synthetic and natural microspheres, liposomes, dextran, and other corpuscular natural and synthetic polymer carriers.
15. (Withdrawn) Pharmaceutical agent according claims 12-14 which additionally contains ribonuclease and/or lipase and/or proteinase.
16. (Withdrawn) Pharmaceutical agent according claim 12, differs in that the compound possessing desoxyribonuclease activity is antibody possessing nuclease activity, in particular polyclonal DNA- abzymes, monoclonal DNA-abzymes or their derivatives.

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17. (Withdrawn) Pharmaceutical agent according claim 12, differs in that the compound able to bind DNA is antibody able to bind DNA and its complexes and derivatives of said antibody.
18. (Withdrawn) Pharmaceutical composition for oncological and infectious diseases treatment, containing pharmaceutical agent according claims 12-16 in therapeutically effective amount and pharmaceutically acceptable carrier or excipient.
19. (Currently Amended) Method to increase the life time [[which]] due to delay of onset of age-related pathologies, differs in that the life time increase is achieved by inactivation or binding or enzymatic modification of extracellular [[DNA circulating in]] blood plasma [[by said]] DNA [[destruction, binding or modification]] according claims [[2-17]] 2-5, 11.
20. (Currently Amended) Method of prophylaxis of pathologies connected with appearance and development of somatic mosaicism by the way of destruction, binding or enzymatic modification of blood extracellular DNA according to claims [[2-17]] 2-5, 11.
21. (Withdrawn) Method to control the treatment efficacy of oncological and/or infectious and somatic diseases, to estimate the infection development, to control the efficacy of treatment directed to prolongation of life time, by the way of measurement of patient biochemical factors, differs in that monitoring for control of such treatment sizes of molecules, fractions' correlation, bindings with proteins, lipids and sugars, nucleotide consequences of free circulating blood plasma DNA are used.
22. (Withdrawn) Usage of blood plasma DNA and extracellular microbial DNA for evaluation of DNA involved in process of diseases' appearance and development, which usage includes its

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cloning, sequencing, identification of genes, unique and repeated sequences with their future studying.